

Details of MOC Items and Related Action Items5A-008
DO NOT RELEASE
EPA Region 10
Deemed Releasable

Unit Name:	Hydrotreating Unit #2	Unit Synonym:	
REF Number:	M2014685-001	MOC Number:	2720

<u>MOC Title:</u>	M2014685 - HTU2 - Install temporary clamp on spent caustic batch out line	<u>MOC Status:</u>	MOC Completed
<u>Work Order #:</u>	81773793	<u>Date Initiated:</u>	08/22/2014
<u>Responsible Person:</u>	WALKER, JAMES	<u>Temp Change Expiry</u>	10/31/2014
<u>Initiator:</u>	WALKER, JAMES	<u>Termination Date:</u>	
<u>Accepted By:</u>	WALKER, JAMES	<u>Actual Start Date:</u>	08/22/2014
<u>Source:</u>	Leak Meeting	<u>Target Closure Date:</u>	08/22/2014
<u>Category:</u>	Temp. Clamp/Enclosure (c)	<u>Actual Completion Date:</u>	09/19/2014
<u>Priority:</u>	Medium	<u>Risk Ranking:</u>	Operability
<u>Basis:</u>	Operability	<u>Target Start-Up Date:</u>	
<u>Suggested Fix:</u>	Maintenance	<u>Actual Start Date:</u>	
<u>Technical Basis:</u>	The spent caustic batch out line has a leak and a temporary clamp needs to be installed. This is a product quality issue for propane from HTU2/CRU2.		
<u>Description:</u>	The spent caustic batch out line has a leak and a temporary clamp needs to be installed.		
<u>Closure Comment:</u>			

BUSINESS CONFIDENTIAL
INFORMATION

PSR04798

Details of MOC Items and Related Action Items**Emergency MOC Expert / Opinion List:**

<u>Expert1Name</u>	<u>OPINION1</u>	<u>Emergency Type:</u>
<u>Expert2Name</u>	<u>OPINION2</u>	<u>Emergency Date:</u>
<u>Expert3Name</u>	<u>OPINION3</u>	<u>Emergency</u>
<u>Expert4Name</u>	<u>OPINION4</u>	

**BUSINESS CONFIDENTIAL
INFORMATION**

PSR04799

Details of MOC Items and Related Action ItemsEvaluation Items:

<u>Completion Dates</u>		<u>Evaluation</u>	<u>Status</u>	<u>Assigned to</u>	<u>Template</u>	<u>Actioned</u>
<u>Target</u>	<u>Actual</u>					
08/22/2014	08/22/2014	Evaluation	Closed	CHUCK HEGLAND	001. PEI- GENERAL	No
<u>Description:</u> D. Has the change accounted for all necessary changes within PEI, such as updates to all pertinent PEI records (e.g. IDMS, Iso's, RBI, C&MDs, CCDs, P&IDs, WHIP, Ammonium Salts, etc)?				<u>Comments:</u> Yes		
<u>Attachments</u>						
08/22/2014	08/22/2014	Evaluation	Closed	JAMES WALKER	007. OPERATIONS- GENERAL	No
<u>Description:</u> OPS: Has Operations reviewed the operability of the design (lineups, accessibility for operation or maint., emergency response impacts, bypassing systems, labeling, etc)?				<u>Comments:</u> Yes per leak meeting discussion		
<u>Attachments</u>						
08/22/2014	08/22/2014	Evaluation	Closed	JAMES WALKER	007. OPERATIONS- GENERAL	No
<u>Description:</u> RP- Assign a target approval date and add the Area Production Manager to the Approval Committee on the Approval Page to obtain Technical Approval prior to implementation.				<u>Comments:</u> Jason Smolsnik added - Delegate for Sean Cornett		
<u>Attachments</u>						
08/22/2014	08/22/2014	Evaluation	Closed	CHUCK HEGLAND	TEMP. CLAMPS / ENCLOSURE	No
<u>Description:</u> 001. Has the change design accounted for all active damage mechanisms (such as bolts, gaskets, wiring, etc.)?				<u>Comments:</u> Yes, temporary clamp rated for hydrocarbon		
<u>Attachments</u>						
08/22/2014	08/22/2014	Evaluation	Closed	CHUCK HEGLAND	TEMP. CLAMPS / ENCLOSURE	No
<u>Description:</u> 002. Has the change design accounted for interim inspections to be performed, if required, on a set interval for the Temporary Repair?				<u>Comments:</u> Yes, but line to be replaced during September 2014 TA		
<u>Attachments</u>						
08/22/2014	08/22/2014	Evaluation	Closed	CHUCK HEGLAND	TEMP. CLAMPS / ENCLOSURE	No

BUSINESS CONFIDENTIAL
INFORMATION

PSR04800

Details of MOC Items and Related Action ItemsDescription:

003. Is the custom leak-sealing enclosure (clamp or other) designed to code and with good engineering practices developed for the specific application?

Comments:

Not custom, off the shelf

Attachments

08/22/2014	08/22/2014	Evaluation	Closed	CHUCK HEGLAND	TEMP. CLAMPS / ENCLOSURE	No
------------	------------	------------	--------	---------------	--------------------------	----

Description:

004. Are all materials used in the clamp or enclosure adequate for the design conditions?

Comments:

Yes per literature

Attachments

08/22/2014	08/22/2014	Evaluation	Closed	CHUCK HEGLAND	TEMP. CLAMPS / ENCLOSURE	No
------------	------------	------------	--------	---------------	--------------------------	----

Description:

005. In cases where sealant injection is necessary, have the maximum sealant volume and injection pressure been determined?

Comments:

N/A

Attachments

08/22/2014	08/22/2014	Evaluation	Closed	CHUCK HEGLAND	TEMP. CLAMPS / ENCLOSURE	No
------------	------------	------------	--------	---------------	--------------------------	----

Description:

006. Has the enclosure been designed to hold the parent components together under rated design pressure in case they fail after repair?

Comments:

No, if another leak occurs additional mitigation will be discussed

Attachments

08/22/2014	08/22/2014	Evaluation	Closed	CHUCK HEGLAND	TEMP. CLAMPS / ENCLOSURE	No
------------	------------	------------	--------	---------------	--------------------------	----

Description:

007. Has it been determined that the weight of the enclosure can be supported by the leaking component? Is additional support required?

Comments:

Temp. clamp shows 5lbs max

Attachments

08/22/2014	08/22/2014	Evaluation	Closed	JAMES WALKER	TEMP. CLAMPS / ENCLOSURE	No
------------	------------	------------	--------	--------------	--------------------------	----

Description:

008. If this is an enclosure on rotating equipment, have the mechanical loads or alignments been considered?

Comments:

NA

Attachments

08/22/2014	08/22/2014	Evaluation	Closed	CHUCK HEGLAND	TEMP. CLAMPS / ENCLOSURE	No
------------	------------	------------	--------	---------------	--------------------------	----

Description:Comments:

**BUSINESS CONFIDENTIAL
INFORMATION**

PSR04801

Details of MOC Items and Related Action Items

009. Is the damage mechanical crack or corrosion? If cracking, have lateral stresses been taken into consideration? corrosion

Attachments

08/22/2014	08/22/2014	Evaluation	Closed	CHUCK HEGLAND	TEMP. CLAMPS / ENCLOSURE	No
------------	------------	------------	--------	---------------	--------------------------	----

Description:

010. Has a Shell representative inspected the enclosure during fabrication or before installation (where applicable)?

Comments:

Not fabricated. Shelf item

Attachments

08/22/2014	08/22/2014	Evaluation	Closed	CHUCK HEGLAND	TEMP. CLAMPS / ENCLOSURE	No
------------	------------	------------	--------	---------------	--------------------------	----

Description:

011. If enclosures are welded in outside shops, is certification and approval of the fabrication shop required?

Comments:

N/A

Attachments

08/22/2014	08/22/2014	Evaluation	Closed	JAMES WALKER	TEMP. CLAMPS / ENCLOSURE	No
------------	------------	------------	--------	--------------	--------------------------	----

Description:

012. Will this change affect the operability of the unit, such as limits on operating pressure or temperature, etc?

Comments:

No affect on operability. Temporary clamp.

Attachments

08/22/2014	08/22/2014	Evaluation	Closed	JAMES WALKER	TEMP. CLAMPS / ENCLOSURE	No
------------	------------	------------	--------	--------------	--------------------------	----

Description:

013. Will this change require development of temporary operating procedures?

Comments:

No procedures affected

Attachments

08/22/2014	08/22/2014	Evaluation	Closed	CHUCK HEGLAND	TEMP. CLAMPS / ENCLOSURE	No
------------	------------	------------	--------	---------------	--------------------------	----

Description:

014. Are there any other pressure equipment integrity issues not yet addressed? If so, are adequate safeguards in place?

Comments:

No

Attachments

08/22/2014	08/22/2014	Evaluation	Closed	BRIAN DALEY	TEMP. CLAMPS / ENCLOSURE	No
------------	------------	------------	--------	-------------	--------------------------	----

Description:Comments:

PSR04802

**BUSINESS CONFIDENTIAL
INFORMATION**

Details of MOC Items and Related Action Items

015. Does the change create H&S issues not yet addressed, such as potential tripping or falling hazards, potential exposure, access or egress limitations, etc?

no, decon of system, isolation and exposure during work to install scaffold, clamp reviewed at leak meeting

Attachments

08/22/2014	08/22/2014	Evaluation	Closed	JAMES WALKER	TEMP. CLAMPS / ENCLOSURE	No
------------	------------	------------	--------	--------------	--------------------------	----

Description:

016. Will this change create any potential environmental impact? If so, consult with the Env. representative.

Comments:

No Impact

Attachments

08/22/2014	08/22/2014	Evaluation	Closed	CHUCK HEGLAND	TEMP. CLAMPS / ENCLOSURE	No
------------	------------	------------	--------	---------------	--------------------------	----

Description:

Have possible changes in inspection frequency, future inspection techniques, etc, been considered?

Comments:

Duplicate

Attachments

**BUSINESS CONFIDENTIAL
INFORMATION**

Details of MOC Items and Related Action Items**MOC Approval:**

<u>Approval Committee</u>	<u>Approved</u>	<u>Comments</u>
JASON SMOLSNIK	Yes	Approved as PUM DOA per S Cornett

<u>Approved / Denied By:</u>	WALKER, JAMES	<u>Approved / Denied Date:</u>	08/22/2014
<u>Target Review</u>		<u>Review Completion</u>	
<u>Containment:</u>	The spent caustic batch out line has a leak and a temporary clamp needs to be installed.	<u>Root Cause and</u>	The spent caustic batch out line has a leak and a temporary clamp needs to be installed. This is a product quality issue for propane from HTU2/CRU2.

BUSINESS CONFIDENTIAL
INFORMATION

PSR04804

Details of MOC Items and Related Action Items**Action Items:**

<u>Action No</u>	<u>Completion Dates</u> <u>Target</u> <u>Actual</u>	<u>Action Status</u>	<u>Assigned to</u>	<u>Work Order #</u>	<u>Action Item Description</u>	<u>Remarks</u>	<u>Action Resolution</u>
----------------------	--	--------------------------	--------------------	---------------------	--------------------------------	----------------	------------------------------

Action

1	08/22/2014 08/23/2014	Closed Out	Jim Woolbert		All provisions required to start up have been completed, the equipment has been verified by operations as safe to operate and authorization is hereby given to start up the process/equipment that has undergone this change.	inspections and craft persons have completed there work and the line has been turned over to operations to use.	
---	----------------------------	---------------	--------------	--	---	---	--

Attachments:**BUSINESS CONFIDENTIAL
INFORMATION****PSR04805**

08/11/2015

Shell Anacortes Refinery
Anacortes, Washington

Details of MOC Items and Related Action Items**PSSR Items:**Completion Dates

<u>Target</u>	<u>Actual</u>	<u>PSSR</u>	<u>PSSR Status</u>	<u>Assigned to</u>	<u>Category</u>
---------------	---------------	-------------	--------------------	--------------------	-----------------

PSSR

08/22/2014	08/22/2014	PSSR	Closed	CHUCK HEGLAND	TEMP CLAMPS / ENCLOSURE
------------	------------	------	--------	---------------	-------------------------

Description:

P1-01. Has the installation of the leak-sealing device been reviewed and approved?

Comments:

Per the rating on the temporary clamp and by PEI inspector

Attachments

08/22/2014	08/22/2014	PSSR	Closed	CHUCK HEGLAND	TEMP CLAMPS / ENCLOSURE
------------	------------	------	--------	---------------	-------------------------

Description:

P1-02. Has a Shell representative inspected the enclosure during fabrication or before installation (where applicable)?

Comments:

No fabrication. Yes

Attachments

08/22/2014	08/22/2014	PSSR	Closed	CHUCK HEGLAND	TEMP CLAMPS / ENCLOSURE
------------	------------	------	--------	---------------	-------------------------

Description:

P1-03. If not already in the system, have the sealant and packing MSDS's been submitted to the H&S department?

Comments:

No sealant

Attachments

08/22/2014	08/22/2014	PSSR	Closed	CHUCK HEGLAND	TEMP CLAMPS / ENCLOSURE
------------	------------	------	--------	---------------	-------------------------

Description:

P1-04. If applicable, does the stud bolting meet Piping Code standards requirements for service?

Comments:

Yes, not exposed to process

Attachments

08/22/2014	08/22/2014	PSSR	Closed	CHUCK HEGLAND	TEMP CLAMPS / ENCLOSURE
------------	------------	------	--------	---------------	-------------------------

PSR04806

**BUSINESS CONFIDENTIAL
INFORMATION**

Details of MOC Items and Related Action ItemsDescription:

P1-05. If welding and/or post weld heat treat were required, were these performed according to code and plant procedures?

Comments:

N/A

Attachments

08/22/2014	08/22/2014	PSSR	Closed	JAMES WALKER	TEMP CLAMPS / ENCLOSURE
------------	------------	------	--------	--------------	-------------------------

Description:

P1-06. If a Temporary procedure is required, is it in place and have the appropriate employees been trained?

Comments:

No procedure required

Attachments**Closure Items**

08/25/2014	08/25/2014	PSSR	Closed	JAMES WALKER	USER DEFINED
------------	------------	------	--------	--------------	--------------

Description:

P2-01. Commissioning Date - List the CORRECTED commissioning date (this supercedes the commissioning date initially documented.)

Comments:

08/23/14

Attachments

08/23/2014	08/23/2014	PSSR	Closed	Jim Woolbert	TEMP CLAMPS / ENCLOSURE
------------	------------	------	--------	--------------	-------------------------

Description:

P2-01. Commissioning Date - List the date the clamp/enclosure was put in service (mm/dd/yy).

Comments:

8-22-14

Attachments

08/23/2014	08/23/2014	PSSR	Closed	Jim Woolbert	TEMP CLAMPS / ENCLOSURE
------------	------------	------	--------	--------------	-------------------------

Description:

P2-02. Temporary repair is in place and maintaining integrity?

Comments:

op's did a tightness test and found no leaks

Attachments

PSR04807

**BUSINESS CONFIDENTIAL
INFORMATION**

Details of MOC Items and Related Action Items

08/25/2014	09/11/2014	PSSR	Closed	Brent WELSH	TEMP CLAMPS / ENCLOSURE
------------	------------	------	--------	-------------	-------------------------

Description:

P2-03. Documentation such as drawings, calculations, and sketches are attached?

Comments:

Non engineered pipe clamp.....N/A.

Attachments

08/22/2014	08/25/2014	PSSR	Closed	CHUCK HEGLAND	TEMP CLAMPS / ENCLOSURE
------------	------------	------	--------	---------------	-------------------------

Description:

P2-04. Has the proper documentation for the leak-sealing device been submitted for record keeping?

Comments:

Yes, IDMS and RTR

Attachments

08/22/2014	08/25/2014	PSSR	Closed	CHUCK HEGLAND	TEMP CLAMPS / ENCLOSURE
------------	------------	------	--------	---------------	-------------------------

Description:

P2-05. If applicable, is a plan in place for sealant re-injection?

Comments:

N/A

Attachments

08/22/2014	08/25/2014	PSSR	Closed	JAMES WALKER	TEMP CLAMPS / ENCLOSURE
------------	------------	------	--------	--------------	-------------------------

Description:

P2-06. OPERATIONS/MAINTENANCE- Have all necessary Isolation Packages been created or updated in EDoc? (OMS to coordinate with Doc. Control Supervisor)

Comments:

NA

Attachments

08/22/2014	09/02/2014	PSSR	Closed	JAMES WALKER	TEMP CLAMPS / ENCLOSURE
------------	------------	------	--------	--------------	-------------------------

Description:

P2-07. Has a date for removal of temporary repair been identified? Has a SAP W.O. been initiated for removal?

Comments:

Yes, the addendum has been submitted for the Sept. 2014 HTU2 Outage.

Attachments

**BUSINESS CONFIDENTIAL
INFORMATION**

PSR04808

Details of MOC Items and Related Action Items

10/31/2014	09/19/2014	PSSR	Closed	DARRELL BURNS	TEMP CLAMPS / ENCLOSURE
------------	------------	------	--------	---------------	-------------------------

Description:

P2-99. AFTER this temp repair has been removed and a permanent repair has been completed, document the date of the permanent repair (mm/dd/yy). Do not close item until permanent repair is complete.

Comments:

9/19/2014

Attachments

**BUSINESS CONFIDENTIAL
INFORMATION**

Details of MOC Items and Related Action Items

Equipment Items:

Attachment Names:

**BUSINESS CONFIDENTIAL
INFORMATION**

PSR04810